

Abstract

A method for producing a micromechanical device, especially a micromechanical oscillating mirror device.

It is proposed, starting from the front side of an

5 SOI/EOI(epipoly on insulator) substrate, to penetrate to the desired depth of the silicon substrate layer (1) in two successive, separate deep etching steps, and to use this in its upper region that is close to the oxide layer as
10 sacrificial layer for vertically exposing the island structures (6) that are positioned above the oxide layer (2) in the functional layer (3). The concept according to the present invention of a sacrificial layer process for generating large vertical deflections is based on purely surface micromechanical process steps.

15 Figure 8